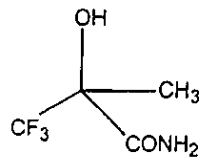
44. (amended) A cell extract derived from a biologically pure culture of a microorganism wherein said microorganism utilizes propionamide of the formula:



VI

in the form of the racemate or of its optically active isomers as the sole nitrogen source; and wherein said microorganism is selected from the group consisting of the species *Klebsiella oxytoca PRS1* (DSM 11009), *Klebsiella oxytoca PRS1K17* (DSM 11623), *Arthrobacter ramosus ID-620* (DSM 11350), *Bacillus sp. ID-621* (DSM 11351), *Klebsiella planticula ID-624* (DSM 11354), *Klebsiella pneumoniae ID-625* (DSM 11355) and *Pseudomonas sp.* (DSM 11010).

REMARKS

This is in response to the Official Action mailed March 21, 2003 for the above-identified patent application. Claims 28-44 are pending in the application. Claim 35 and 41-44 have been amended as is further discussed below. For reasons set forth in detail below, Applicants request that all objections and rejections be withdrawn and that the pending claims be allowed.

1. Claim Rejections Under 35 U.S.C. §112, First Paragraph:

Claim 35 is rejected under 35 U.S.C. §112, first paragraph as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey that the inventors had possession of the claimed invention. Claim 35 has been amended to specify that the microorganism of the genus *Klebseilla* is selected from the group consisting of the species *Klebsiella oxytoca* PRS1 (DSM 11009), *Klebsiella oxytoca* PRS1K17 (DSM 11623), *Klebsiella planticula* 1D-624 (DSM 11354) and *Klebsiella pneumoniae* 1D-625 (DSM 11355). In view of the foregoing, withdrawal of the rejection under 35 U.S.C. §112, first paragraph, of Claim 35 is respectfully requested.

2. Claim Rejections under 35 U.S.C. §102

Claims 41 and 43 have been rejected under 35 U.S.C. §102(a) as anticipated by Hirrlinger *et al.* (1996, J. Bacteriol. 178:3501-07:"Hirrlinger"). The Examiner alleges that Hirrlinger discloses the pure culture and cell extract of a *Rhodococcus* microorganism which uses a sole nitrogen source or hydrolyzes enantioselectively 2-aryl-propionamides. Although Hirrlinger does not teach that the *Rhodococcus* microorganism uses the propionamide of formula VI, the Examiner takes the position that the microorganism taught by Hirrlinger inherently has the capability of hydrolyzing the propionamide of formula VI. The Examiner's conclusion are based on the ability of the *Rhodococcus* microorganism taught by Hirrlinger to hydrolyze 2-arylpropionamides.

Claims 41 and 43 are also rejected under 35 U.S.C. §102(b) as anticipated by Dominique *et al.*(EP 0433 117 A1;"Dominique"). The Examiner alleges that Domonique discloses the pure culture and cell extract of a *Rhodococcus* microorganism which hydrolyzes 2-arylpropionamides. Although Dominique does not teach that the *Rhodococcus* microorganism uses the propionamide of formula VI, the Examiner takes the position that the microorganism taught by Dominique inherently has the capability of hydrolyzing the propionamide of formula VI. The Examiner's conclusion are based on the ability of the *Rhodococcus* microorganism taught by Dominique to hydrolyze 2-arylpropionamides.

To expedite the allowance of claims, Applicants have amended claim 41 and 43, without prejudice, to remove reference to microorganisms of the genus *Rhodococcus*. Applicants have amended the claims, ***without prejudice***, to their right to pursue the subject matter encompassed by claims directed to microorganisms of the genus *Rhodococcus* in a later filed application. In view of the foregoing amendments, reconsideration and withdrawal of the rejection of Claims 41 and 43 under 35 U.S.C. §102(a) and (b) in view of Hirrlinger and Dominique, respectively, is respectfully requested.

3. Claim Rejections under 35 U.S.C. § 103

Claims 28-34, 36-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirrlinger (as applied to claims 41, 43) or Dominique (as applied to claims 41-44), and further in view of Keith et al. (EP 524781 A1, 1-27-1993;"Keith"). According to the Examiner, Claims 22-34, 36-44 of the instant application are drawn to a biologically pure culture of microorganism, selected from the group consisting of *Rhodococcus*, *Arthrobacter*, *Bacillus*,

Klebsiella and *Pseudomonas*, wherein said microorganism utilizes/hydrolyzes propionamide of formula VI in the form of the racemate or of its optically active isomers as the sole nitrogen source. In addition, the microorganisms contain a polynucleotide (with SEQ ID NO:1 or any polynucleotide which hybridizes to SEQ ID NO:1 under stringent conditions and encodes a stereospecific amidohydrolase) encoding a polypeptide with SEQ ID NO:2, having amidohydrolase activity and wherein such activity hydrolyzes the propionamide of the formula VI.

The references of Hirrlinger and that of Dominique have been discussed above as they related to microorganisms of the genus *Rhodococcus*. The Examiner maintains that Keith teaches that compounds with the formula R-3,3,3-trifluro-2-hydroxy-2-methylpropionamide are useful as cell potassium channel openers in humans and certain substituted amides are useful in treatment of urinary incontinence. The Examiner alleges that the reference also teaches that because above compounds function to open potassium channels, they may also be useful as therapeutic agents in the treatment of conditions or diseases in which opening of potassium channels of the cells leads to amelioration of associated disorders such as hypertension, asthma, peripheral vascular disease, heart failure, angina, baldness, premature labor, impotence, peptic ulcer, etc.

The Examiner concludes that based on the teachings of Hirrlinger or Dominique, one skilled in the art would have been motivated to use the microorganisms (or the enzymes produced by such microorganisms produced by using the cDNA) disclosed in those references to make the compounds for the ultimate use taught by Keith.

As indicated above, to expedite the allowance of claims, Applicants have amended the claims to remove reference to microorganisms of the genus *Rhodococcus*. Applicants have amended the claims, ***without prejudice***, to their right to pursue the subject matter encompassed by claims directed to microorganisms of the genus *Rhodococcus* in a later filed application. In view of the foregoing amendments, reconsideration and withdrawal of the rejection of Claims 28-34, and 36-44 under 35 U.S.C. §103 in view of Hirrlinger, Dominique and Keith, is respectfully requested.

CONCLUSION

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **"Version with Markings to Show Changes Made."**

In view of the foregoing amendments and remarks, reconsideration and allowance of all the claims in this application are respectfully requested.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

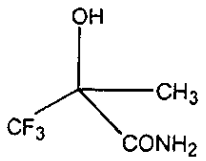
Please amend claim 35 as follows:

35. (Amended) The process of claim 30 wherein the microorganism [is of the genus *Klebsiella*] is selected from the group consisting of the species *Klebsiella oxytoca* PRS1 (DSM 11009), *Klebsiella oxytoca* PRS1K17 (DSM 11623), *Klebsiella planticula* ID-624 (DSM 11354), and *Klebsiella pneumoniae* ID-625 (DSM 11355).

Please cancel claim 39.

Please amend claims 41-44 as follows:

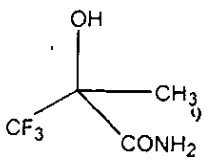
41. (Amended) A biologically pure culture of a microorganism wherein said microorganism utilizes propionamide of the formula:



VI

in the form of the racemate or of its optically active isomers as the sole nitrogen source; and wherein said microorganism is selected from the group consisting of the *genus* [*Rhodococcus,*] *Arthrobacter, Bacillus, Klebsiella* and *Pseudomonas.*

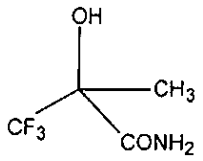
42. (amended) A biologically pure culture of a microorganism wherein said microorganism utilizes propionamide of the formula:



VI

in the form of the racemate or of its optically active isomers as the sole nitrogen source; and wherein said microorganism is selected from the group consisting of the species *Klebsiella oxytoca PRS1 (DSM 11009), Klebsiella oxytoca PRS1K17 (DSM 11623),*[*Rhodococcus opacus ID-662 (DSM 11344),*] *Arthrobacter ramosus ID-620 (DSM 11350), Bacillus sp. ID-621 (DSM 11351), Klebsiella planticula ID-624 (DSM 11354), Klebsiella pneumoniae ID-625 (DSM 11355)* and *Pseudomonas sp. (DSM 11010).*

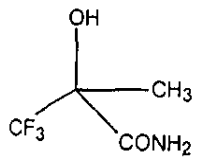
43. (amended) A cell extract derived from a biologically pure culture of a microorganism wherein said microorganism utilizes propionamide of the formula:



VI

in the form of the racemate or of its optically active isomers as the sole nitrogen source; and wherein said microorganism is selected from the group consisting of the genus [*Rhodococcus,*] *Arthrobacter, Bacillus, Klebsiella* and *Pseudomonas.*

44. (amended) A cell extract derived from a biologically pure culture of a microorganism wherein said microorganism utilizes propionamide of the formula:



VI

in the form of the racemate or of its optically active isomers as the sole nitrogen source; and wherein said microorganism is selected from the group consisting of the species *Klebsiella oxytoca PRS1* (DSM 11009), *Klebsiella oxytoca PRS1K17* (DSM 11623), [*Rhodococcus opacus ID-662* (DSM 11344)], *Arthrobacter ramosus ID-620* (DSM 11350), *Bacillus sp. ID-621* (DSM 11351), *Klebsiella planticula ID-624* (DSM 11354), *Klebsiella pneumoniae ID-625* (DSM 11355) and *Pseudomonas sp.* (DSM 11010).